and pulling up on the mandrel, and equalizing the thickness of the polymer film by pulling up on the mandrel in a vertical direction, para.[0033]." (emphasis added)

Then, it was held on page 3, lines 5-7 of the final Action that "Takehisa does not discloses first forming a perforated polymer layer on a mandrel, adding a stent element to that composition on the mandrel, then forming a second layer on top of the element."

In order to rectify the deficiencies of Takehisa, Edwin was cited.

However, the Examiner's opinion in the final Action is incorrect, as underlined above.

As explained in paragraphs 0031, 0035 and 0036 of Takehisa, at first, the polymer on the mandrel is dried as shown in Fig. 7(b), and then, while the polymer is held by the mandrel, laser is applied to perforate fine through pores. The fine through pores are formed at equal intervals.

In the above drying and perforating step in Fig. 7(b), the stent matrix is not disposed inside the polymer, different from the invention. Thus, it is not possible to perforate the fine through pores at the portions where the stent matrix does not exist.

It is clearly recited in claim 25 of the invention, after forming the polymer layers on the stent matrix, a plurality of fine through pores is perforated in the solid polymer layers only where the stent matrix does not exist. In this respect, claim 25 is different from Takehisa.

In the Examiner's opinion stating that a plurality of fine through pores is formed at portion only where the stent matrix does not exist with reference to Fig. 2, Fig. 2 simply shows the stent matrix in the expanded state. In Figs. 4-6, fine through pores are formed in the polymer with the matrix situated inside the polymer.

There is no explanation in the specification that the fine pores are formed at portion where the stent matrix does not exist. Actually, at first, the fine through pores are formed in the polymer, and then, the stent matrix is disposed inside the polymer with the fine through pores. There is no explanation in Takehisa about the locations of the fine through pores with respect to the stent matrix.

What is more important is that claim 25 is directed to a process of producing the stent, wherein after the polymer layers are formed on the stent matrix, the fine through pores are perforated at the specific portions where the stent matrix does not exist.

Namely, the sequence of the steps is important in the invention. In the invention, after polymer layers are deposited on the stent matrix, the fine through pores are formed. Thus, it is possible to form fine through pores only at portion were the stent matrix does not exist. In Takehisa, it is not possible or need special technique to place the stent inside the polymer where the fine through pores do not exist. Any explanation for the arrangement of the fine through pores with respect to the stent matrix is made.

In this respect, Takehisa does not disclose or even suggest the features of claim 25.

In addition, in the method of the invention, the stent matrix is installed on an inner polymer layer disposed on the outer surface of a mandrel. Namely, the inner polymer is disposed inside the stent matrix. In Takehisa, the stent matrix is disposed inside the polymer layer. Namely, no inner layer is formed inside stent.

Accordingly, Takehisa does not disclose or suggest the method of claim 25.

Edwin is directed to a method for selectively bonding layers of polymeric material to create endoluminal vascular devices. In Edwin, ePTFE tubular member is placed on a mandrel, a stent device is placed over the first tubular member, and a second ePTFE tubular member is slid over the stent. The ePTFE assemble is wrapped and is placed into an oven.

In Edwin, fine through pores are not formed in the assembly.

Also, in Edwin, in order to adhere ePTFE of the inner layer and ePTFE of the outer layer, an adhesive is used. Thus, at the portion where the adhesive is hardened or cured, ePTFE film is liable to partly hardened, so that expandable pattern designed on the stent matrix may be lost. Also, the adhesive may cause harm to a human body.

In the invention, the adhesive is not required, and the outer and inner layers can be equally deposited on the stent.

Further, ePTFE used in Edwin has a property having small pores therein, so that if blood passes through the small pores and contacts the metal stent, blood proteins and plaque may be activated to generate blood clot. Also, there is a fear of metal allergy, stimulation of cells by metal or generation of corrosion.

In the present invention, since the fine through pores are formed in the outer and inner layers at portions where the stent matrix does not exist, the problems caused by metal do not occur.

In case Takehisa and Edwin are referred to, the stent with the inner and outer layers may be formed according to the method of Takehisa. However, it is not possible to form a plurality of fine through pores after the stent with the inner and outer layers is formed, at the portions only where the stent matrix does not exist.

As explained above, even if the cited references are combined, claims in the application are not obvious from the cited

references. Claims pending in the application are patentable over the cited references.

Reconsideration and allowance are earnestly solicited.

If any further amendment or clarification is required, please contact the undersigned agent.

Respectfully Submitted,

KANESAKA BERNER & PARTNERS

By 

Manabu Kanesaka
Reg. No. 31,467
Agent for Applicants

1700 Diagonal Road, Suite 310
Alexandria, VA 22314
(703) 519-9785